

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference COW-0540/PCT	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/EP2005/001608	International filing date (day/month/year) 17/02/2005	(Earliest) Priority Date (day/month/year) 16/03/2004
Applicant CONSTRUCTION RESEARCH & TECHNOLOGY GMBH		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 1 S. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 5 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of:

- ☐ the international application in the language in which it was filed
☐ a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1 (b))

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ Certain claims were found **unsearchable** (see Box No. II)

3. ☐ **Unity of invention is lacking** (see Box No. III)

4. With regard to the **title**,

- ☒ the text is approved as submitted by the applicant
☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

- ☐ the text is approved as submitted by the applicant
☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority

6. With regard to the drawings,

a. the figure of the **drawings** to be published with the abstract is Figure No. 1

- ☐ as suggested by the applicant
☒ as selected by this Authority, because the applicant failed to suggest a figure,
☐ as selected by this Authority, because this figure better characterizes the invention

b. ☐ none of the figures is to be published with the abstract

INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP2005/001608

Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

The invention relates to an apparatus for coating the inner surface of a tunnel section with sprayed concrete, comprising a spray lance b) (4) and a spray nozzle a) (7) which can each be moved in all directions by means of joints, a first control device k) for the operation of the spray lance b) (4) and a second control device l) for the operation of the spray nozzle a) (7) being provided.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP2005/001608

A. CLASSIFICATION OF SUBJECT MATTER

IPK 7 E21D11/10 E04G21/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPK 7 E21D E04G

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database consulted during the international search (name of database and, where practicable, search terms used)

EPO-INTERNAL, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 3224203 A (BRANNFORS STEN HARALD ET AL) 21 December 1965 (1965-12-21)	1, 4-9
Y	Column 3, Lines 5-73	3
Y	US 5851580 A (AMBERG ET AL) 22 December 1998 (1998-12-22) In the Registration mentions Column 3, Lines 43-56 Column 4, Lines 16-20	3
X	DE 2361968 (MACHINENFABRIK GLUECKAUF BEUKENBERG KG, 4650 GELSENKIRCHEN) 19 June 1975 (1975-06-19) Side 11, Paragraph 6 - Side 12, Paragraph 1	1, 4-9



Further documents are listed in the continuation of Box C.



See patent family annex.

*** Special categories of cited documents**

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"U" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"I" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"W" document member of the same patent family

Date of the actual completion of the international search

4 May 2005

Date of mailing of the international search report

11/05/2005

Name and mailing address of the ISA/

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP2005/001608

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	PATENT ABSTRACTS OF JAPAN Bd. 2000, Nr. 11 3 January 2001 (2001-01-03) & JP 2000 220393 A (ISHIKAWAJIMA HARIMA HEAVY IND CO LTD; RIBUKON ENGINEERING KK), 8 August 2000 (2000-08-08) Summary	1-9
A	US 3531054 A (ELGAS PULK) 29 September 1970 (1970-09-29) Column 2, Line 18 - Column 3, Line 12 Column 3, Lines 31-43	1-9
A	US 4156503 A (NOREN, JOHN P) 29 May 1979 (1979-05-29) Column 3, Line 47 - Column 4, Line 8	1-9

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.

PCT/EP2005/001608

In The Search Report Stated Patent Document	Date Of The Publication	Member Of The Patent Family	Date Of The Publication
US 3224203 A	21-12-1965	NONE	
US 5851580 A	22-12-1998	CH 691873 A5 AT 409885 B AT 225196 A DE 19652811 A1 FR 2743108 A1	15-11-2001 27-12-2002 15-04-2002 03-07-1997 04-07-1997
DE 2361968 A1	19-06-1975	AT 340352 B AT 916274 A CH 586346 A5 IT 1023344 B JP 50106430 A NO 744491 A SE 412785 B SE 7415336 A	12-12-1977 15-04-1977 31-03-1977 10-05-1978 21-08-1975 07-07-1975 17-03-1980 16-06-1975
JP 2000220393 A	08-08-2000	NONE	
US 3531054 A	29-09-1970	NONE	
US 4156503 A	29-05-1979	NONE	